MARKED-UP SPECIFICATION

Screening for competitors of ligand binding (Figure 8). SuperAldehyde slides were coated at room temperature with a solution of "5-helix" dissolved in phosphate buffered saline, pH 7.5 (PBS), at a concentration of 0.1 mg/ml. "5-helix" is a portion of the HIV protein gp41 and has been previously described by Root *et al.* in *Science* 291:884-888, 2001; which is incorporated herein by reference. After 1 hour, the slides were immersed in a solution of PBS/Tween-20 (0.1%) [PBST] + 1% BSA, at room temperature for one hour to quench all the unreacted sites on the slide. After 1 hour, the slides were rinsed with PBST and then incubated for 1 hour at room temperature with either 10 nM of C37-H6 (GGHTTWMEWDREINNYTSLIHSLIEESQNQQEKNEQELLGGHHHHHH) (SEQ ID NO:1), 1μm or 10 nM JN-DCC1 (GGHTTWMELDREINNYTSLIHSLIEESQNQQEKNEQELL) (SEQ ID NO:2), or 10 nM JN-DCC2 (GGHTTWMEADREINNYTSLIHSLIEESQNQQEKNEQELL) (SEQ ID NO:3) (Chan *et al. Proc. Natl. Acad. Sci. USA* 95:15613-15617, 1998; incorporated herein by reference). All three of these peptides are ligands for 5-helix. Of the three peptides, C37-H6 binds with the highest affinity, JN-DCC1 with the second highest affinity, and JN-DCC2 with the lowest affinity. After the 1 hour incubation, the slides were washed with distilled water and centrifuged to remove excess buffer. To test the stability of these slides, they were left at room temperature in a humid chamber for 24 hours before further processing.